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THE BULLETIN OF ZOOLOGICAL NOMENCLATURE

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THE INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

Edited by

FRANCIS HEMMING, C.M.G., C.B.E.

Secretary to the International Commission on Zoological Nomenclature

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BULLETIN OF ZOOLOGICAL NOMENCLATURE

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EDITORIAL NOTE

The present Part contains the documents prepared for consideration at Copenhagen in relation to seven cases. These are those to which the Case Numbers 26 to 32 have been allotted.

2. Of these applications the first (Case No. 26) is concerned with a suggested addition to Article 23, in order to provide a means for the uniform citation of names in cases where a particular species is doubtfully referred to a given genus or where one species is doubtfully identified with another.

3. The remaining six cases are all concerned with one aspect or another of Article 25. The subjects so dealt with are the following :—

Case No. 27. Proposed insertion of a provision that the distribution of a microfilm does not constitute " publication " of the paper reproduced in this manner and therefore that nothing contained in it possesses any status in zoological nomenclature (Z.N.(S.)528)

Case No. 28. Proposed co-ordination with other parts of the *Règles* of the provision in Article 25 relating to the nomenclatorial status of books and papers, the manner of the issue of which does not satisfy the tests prescribed for " publication " (Z.N.(S.)741)

Case No. 29. Proposed redrafting of Provisos (a) and (c) to Article 25 to make it clear that, in order for a name to become available, it must be published with diagnostic characters (Z.N.(S.)738)

Case No. 30. Proposed insertion in Provisos (a) and (c) to Article 25 of a provision denying availability in the case of the trivial name of any fossil species unless at the time of the publication of that name there was published also a figure of the species in question (Z.N.(S.)693).

Case No. 31. Question whether a name given to a nominal genus, the type specimen of the type species of which is a pathological monstrosity should be given any status of availability (Z.N.(S.)719)

Case No. 32. Proposed insertion of a provision that a name published by an author who made it clear that his object in so doing was some purpose other than that of providing a name for use in zoological nomenclature possesses no status of availability (Z.N.(S.)668).

CASE No. 26

ARTICLE 23 : PROPOSED ESTABLISHMENT OF A METHOD OF CITATION IN CASES WHERE A SPECIES IS DOUBTFULLY REFERRED TO A GIVEN GENUS AND WHERE ONE SPECIES IS DOUBTFULLY IDENTIFIED WITH ANOTHER

(Commission's reference Z.N.(S.)152)

DOCUMENT 26/1

By **LLOYD G. HENBEST**
(*United States Geological Survey, Washington, D.C., U.S.A.*)

Letter dated 20th March, 1944

I wish to place the following problem in taxonomic nomenclature before the International Commission on Zoological Nomenclature.

A problem arises from confused usage in qualifying taxonomic names with the question mark. This is not a new problem, but evidence indicates that previous efforts at standardising usage have not succeeded. I have discussed this subject with fourteen taxonomists, who represent as many fields of taxonomy. I have encountered five different opinions on the question. Variation in usage appears in paleontologic literature. Dr. R. W. Brown, a paleobotanist of the U.S. Geological Survey, has recently shown me instances of confusion in paleobotanical literature. If my experience is representative, confusion will prevail until a generally satisfactory style is recommended for taxonomists to follow.

The greatest difference of opinion was expressed on the proper way of questioning the specific name. Fair agreement exists on the other uses of the question mark.

I shall list six examples of variation in the position and use of the question mark and discuss each one separately. The specific name is fictitious.

(1) ? *Fusulina nanicella* Smith 1885

(2) *Fusulina* ? *nanicella* Smith 1885

(3) *Fusulina nanicella* ? Smith 1885

(4) (a) *Fusulina nanicella* Smith ? 1885 (question mark here intended to qualify the species)

(b) *Fusulina nanicella* Smith Smith ? 1885 (same position as in example 4 (a) but intended to qualify name of author)

(5) *Fusulina nanicella* Smith 1885 ?

Example 1.—The question mark in front of any isolated series of connected words is generally regarded as qualifying the entire series. The same is understood when the question mark is placed in front of a taxonomic name, if the name is isolated, as in synonymies, faunal lists, and headings. The reference here is rather self-evident, and everyone seems to agree on the meaning of this style of usage.

If, however, a name that is preceded by a question mark stands in a series of words, as in a sentence, the question mark might reasonably be misconstrued as qualifying a preceding word. At least three measures could be taken to prevent such an ambiguity or dangling reference. One possible method consists of placing the question mark and the entire name and author citation in parentheses, as for example (? *Dictyonema parva* Doe, 1930). A second method consists of writing the question mark in front of the generic name but without a space between them, as for example, ?*Dictyonema parva* Doe, 1930. A third method consists of enclosing the entire name in parentheses and placing the question mark after the last parenthesis. Though this third method would involve an undesirable change of style from that commonly used in synonymies, the meaning would be clear. Perhaps the occasion to qualify an entire name in a sentence is so rare that it is unnecessary to recommend a style or perhaps it would be better to gain the same end by placing a question mark after the generic name and one after the specific name. It is my opinion, however, that the second method, that of placing the question mark in front of the generic name without a letter break and italicised, is the best style generally.

Example 2.—Everyone agreed that the question mark between the generic and specific names qualifies only the generic name. The meaning of this style of usage corresponds to that in English writing and thinking in general.

One taxonomist wondered whether analogy with the style of usage in example 1 would cause anyone to misconstrue the query as referring to the species name, but agreed that it was unlikely. If the question mark followed the generic or any other epithet without a letter-space break, its reference would be clear.

Example 3.—The most confusion arises over whether the style in example 3 or that in example 4 (a) is the correct way to qualify the name of the species. The majority of taxonomists with whom I have discussed the problem favor the style in example 3, wherein the question mark qualifies only the nearest preceding word. The arguments in favour of style 3 versus style 4 (a) follow :

(A) Style 3 corresponds to the normal usage of the question mark in literary and scientific writing. In paleontology it will be correctly understood not only by taxonomists themselves but also by the many stratigraphers who have occasion to use paleontological literature and who are not acquainted with whatever intricate distinctions or esoteric concepts in zoological nomenclature that argue for placing the question mark after the author's name to qualify the species.

(B) In our system of binary nomenclature, the complete name of an organism consists of the generic and of the original valid specific name. *Invalid employments of the species name by later authors are always assumed to be excluded unless contextual evidence or a special indication to the contrary is made.* Such an indication to the contrary is illustrated by the following example : *Fusulina nanicella* Jenkins, 1889 (not Smith, 1885). When using a specific name it is widely recommended that both the author and date be cited whenever they are not clearly evident from the context. This is recommended as a convenience. Such practice is a characteristic of good writing, but a name is not necessarily invalid or meaningless without the citation. (Articles 22 and 25 of the International Rules.)

It should be clearly understood that all of those polled stressed the need for citing the authorship of taxonomic names. There is no disagreement on this point. Of course, the reader could search the literature for determining the authorship of a name just as the reader of scholarly treatises could search for sources of unaccredited quotations or references, but no prudent writer ever imposes that burden on his readers.

(C) Although the Code advises (Article 22) that punctuation *should* not intervene between the name of a species and that of its author, at least one kind of exception is sanctioned (Article 23), as illustrated by *Fusulinella nanicella* (Smith) 1885, wherein a parenthesis does intervene between "*nanicella*" and "Smith". The parenthesis mark and the question mark are partly grammatical and partly rhetorical marks. Whether the interposing of a question mark between the species and author names violates the intention of Article 22 is not entirely clear, although it is assumed that the Code intended to say that such marks as the comma should not separate these names—as it does, for example, in addresses such as Boston, Massachusetts—where a preposition is omitted.

(D) If, as some insist, the name of the author of a species is a *necessary and inseparable* part of the species name, it follows that the system of nomenclature becomes trinary instead of binary, as required by the Code. Accordingly, many names (such as *Fusus gigantea* Rowe, 1900 and *Fusus gigantea* Doe, 1901) that are regarded as homonyms under the binary system of the International Code are actually different names if the author's name is a necessary and inseparable part of the specific name.

It has also been argued that whereas the name of the author may not be entirely restrictive, the year of publication is also required and should also be regarded as a necessary part of the species name. This argument is as logical as that for regarding the author's name as a necessary part of the species name. The trouble here is that even the year may not be restrictive in detail. There is no place to stop in making a name completely restrictive unless the name includes the exact date, time of day, and time zone—an obvious absurdity.

(E) The style of questioning the species by placing the question mark after the author's name seems to be regarded by the majority of those I polled as representing an unimportant and rather esoteric distinction in nomenclature. Whether this majority is correct in its attitude and whether this majority represents taxonomists in general is not for me to conjecture. It does seem a mistake, however, to invent a special construction in writing that so few will comprehend and so many misconstrue.

Example 4 (a).—As already indicated above, a considerable number of taxonomists, though a minority of those I polled, regard this as the only proper location of the question mark for qualifying the species. They argue that the species name is meaningless without a citation of the authorship, and, if I construe their argument correctly, take the opposite view to that expressed in paragraph 3 (B) of my discussion above.

Example 4 (b).—The majority of those interviewed regard the question mark in this position as obviously qualifying the authorship. This attitude is consistent with and an extension of that expressed in the discussion above of example 3.

Although uncertainty of authorship is a rare event in zoological taxonomy, such uncertainty is reported, nevertheless. An example is discussed by Dr. G. A. Cooper in his article " Concerning the authorship of the ' Preliminary notice of the lamellibranch shells of the upper Helderberg, Hamilton, and Chemung groups, etc. Part 2' " (Washington Acad. Sci., Jour., vol. 21, no. 18, pp. 459–467, 1931). A practical angle to the entire question is the fact that a great many taxonomists and practically all general readers will interpret the question mark in this position as qualifying only the immediately preceding word and will continue to do so whether efforts to conventionalise usage 4(a) are justified or not.

Example 5.—The question mark in this position in normal writing would normally reflect on the date alone. In the present confusion it might be misconstrued as qualifying the entire name and citation, or if the author's name and the date are necessary and inseparable parts of the specific name it might be construed as reflecting on the specific name.

Proposed ruling.—It seems to me that the confusion over the style of using the question mark can easily be cleared away by recommending a simple, logical rule. I should like to propose the following one for your consideration : " *A question mark in front of a taxonomic name qualifies the entire name as cited, but if within or at the end of the name it qualifies only the nearest preceding term. If a taxonomic name with a preceding question mark stands within a series of words, the question mark should be italicised and be followed by the generic term without a word-break to prevent ambiguous reference* ".

The first part of this rule has the important advantages of simplicity and of self-evident significance, because it agrees with common usage in writing and thinking. It avoids the misunderstanding that generally results from attempts to express esoteric concepts by special construction on common terms or on common usage.

The last part of the rule is offered as perhaps the preferable way of avoiding ambiguity of reference. I am inclined to think that this method is preferable to that of enclosing both the anterior question mark and the name in parentheses.

I am under obligation to Dr. R. W. Brown, Dr. John B. Reeside, Jr. and to other colleagues for discussions that were helpful, whether we viewed the problem alike or not.

CASE No. 27

ARTICLE 25 : PROPOSED INSERTION OF A PROVISION THAT THE DISTRIBUTION OF A MICROFILM DOES NOT CONSTITUTE "PUBLICATION" OF THE PAPER REPRODUCED IN THIS MANNER AND THEREFORE THAT NOTHING CONTAINED IN SUCH A PAPER POSSESSES ANY STATUS IN ZOOLOGICAL NOMENCLATURE

(Commission's reference Z.N.(S.)528)

DOCUMENT 27/1

REPORT ON THE ADOPTION OF A " DECLARATION "

By **FRANCIS HEMMING**, C.M.G., C.B.E.
(*Secretary to the International Commission on Zoological Nomenclature*)

The question whether a new name made public by being included in a paper distributed in microfilm but by no other means possesses any status in zoological nomenclature was first brought before the International Commission in a letter dated 6th February, 1951, submitted jointly by (a) the Joint Committee on Zoological Nomenclature for Paleontology in America and (b) the Nomenclature Committee of the Society of Systematic Zoology. This application asked the International Commission to rule that for new taxonomic units made public in this way should be ignored until such time as they might appear in printed form.

2. The foregoing application was published in September, 1951, and its publication elicited comment from a number of quarters. At the expiry of the prescribed period a Postal Vote was taken in regard to this matter, the proposal submitted being in the sense of the recommendation submitted. At the time when this vote was taken, the Commission consisted of eighteen members, seventeen of whom voted in favour of banning microfilms as a method of " publishing " new names for taxonomic units ; no vote was received from the eighteenth Commissioner—Professor T. Jaczewski (Poland). This Vote was begun in May, 1952, and was completed in August of that year. A " Declaration " announcing the decision reached would thereupon have been published, if it had not been for the fact that, in returning his vote in favour of the proposal, Professor J. Chester Bradley expressed the view that the action proposed was not sufficiently comprehensive, for it dealt only with the question of the status of a new name distributed in microfilm and made no reference to another important question which might certainly be expected to arise, namely whether a type-selection made for a genus in a paper distributed in this way

constitutes a valid selection for the purposes of Rule (g) in Article 30. To remedy this defect, Professor Bradley proposed the insertion in the *Règles* of a general provision (not limited to the case of microfilms). Professor Bradley's proposal is submitted under Case No. 28, but the portion of his note which is concerned exclusively with the microfilm problem is reproduced in the present Series as Document 27/2.

3. Since the whole of the material relating to this case (other than Professor Chester Bradley's note which, as already explained, is reproduced below as Document 27/2) has already been published in the *Bulletin*, it is not proposed to reprint it here, but it has been thought that the following particulars relating to the sources from which views have been received and the nature of those views will be of convenience in the further consideration of this matter.

4. Specialists by whom the proposal has been supported : The specialists by whom the banning of new names distributed only in microfilm is favoured are set out below, where also references are given to the places where the statements received from these specialists have been published :—

(1) The Joint Committee on Zoological Nomenclature for Paleontology in America and the Nomenclature Committee of the Society of Systematic Zoology (1951, *Bull. zool. Nomencl.* **2** : 306–308).

> *Note :* In the annexe to the application submitted, the following particulars were given regarding the support received for the application then submitted :
>
> *List of zoologists supporting the petition :*
>
> Joint Committee on Zoological Nomenclature for Paleontology in America. Members individually polled and unanimous in support, viz. :
>
> Raymond C. Moore, University of Kansas, Lawrence
>
> A. S. Romer, Museum of Comparative Zoology, Cambridge, Mass.
>
> David H. Dunkle, U.S. National Museum, Washington
>
> S. W. Muller, Stanford University, California
>
> J. Marvin Weller, Walker Museum, University of Chicago
>
> John B. Reeside, Jr., U.S. Geological Survey, Washington
>
> D. L. Frizzell, Rolla, Missouri
>
> A. Myra Keen, Stanford University, California
>
> Katherine V. W. Palmer, Ithaca, New York
>
> J. Brookes Knight, U.S. National Museum, Washington

John W. Wells, Cornell University, Ithaca, New York
G. Winston Sinclair, University of Michigan, Ann Arbor.

Individual zoologists in Chicago, in favour of the petition :

Karl P. Schmidt
Fritz Haas
Bryan Patterson
Rainer Zangerl
Rupert Wenzel
William Beecher
Henry S. Dybas
Robert H. Denison
Robert F. Inger
Emmett R. Blake
Austin L. Rand
Melvin A. Taylor, Jr.
Colin Campbell Sanborn
Eugene S. Richardson, Jr.

Nomenclature Committee, Society of Systematic Zoology Members, individually polled ; all replies were approval :

Ernst Mayr, American Museum Natural History
Robert R. Miller, Univ. of Michigan
Robert L. Usinger, Univ. of California
John W. Wells, Cornell Univ.
Ellsworth C. Dougherty, Univ. of California
J. Brookes Knight, U.S. National Museum
E. Raymond Hall, Univ. of Kansas
Richard E. Blackwelder, U.S. National Museum

(2) E. H. Behre (*Louisiana State University and Agricultural and Mechanical College, Baton Rouge, Louisiana, U.S.A.*) (1951, *Bull. zool. Nomencl.* **2** : 310)

(3) The Committee on Nomenclature of the American Museum of Natural History, New York (1951, *ibid.* **2** : 308)

Note : This communication was signed by :

Mont A. Cazier
Edwin H. Colbert
Norman D. Newall
George H. H. Tate
John T. Zimmer (*Chairman*)

(4) The " Zoological Record " Committee of the Zoological Society of London (1951, *ibid.* **2** : 311–312)

Note : This communication was approved at a meeting of the Committee attended by the following :—

Sheffield A. Neave, C.M.G., O.B.E., D.Sc. (*Chairman*)
William J. Hall, M.C., D.Sc.
Francis Hemming, C.M.G., C.B.E.
Sir Norman Kinnear, C.B.
Terence Morrison-Scott, D.S.C., M.A., M.Sc.
Malcolm Smith
C. J. Stubblefield, D.Sc., F.R.S.
L. Harrison-Matthews, Sc.D. (*Scientific Director and Deputy Secretary, Zoological Society of London*)

(5) Robert Mertens (*Natur-Museum und Forschungs-Institut Senckenberg, Frankfurt a. M.*) (1951, *ibid.* **6** : 223–224)

5. Specialists who expressed opposition to the banning of new names made public only by distribution on microfilm : The two specialists who expressed themselves in opposition to the banning of microfilms as a medium for the publication of new names for taxonomic units were :—

(1) Charles H. Blake (*Massachusetts Institute of Technology, Department of Biology, Cambridge, Massachusetts, U.S.A.*) (1951, *Bull. zool. Nomencl.* **2** : 309)

(2) Joshua L. Baily, Jr. (*San Diego, California, U.S.A.*) (1952, *ibid.* **2** : 223)

6. Terms of proposed " Declaration " voted upon by the International Commission : The following is the text of the proposed *Declaration* on which the International Commission on Zoological Nomenclature voted by post in 1952 :—

There shall be added to the list of methods prescribed by the Thirteenth International Congress of Zoology (as recorded in Conclusion

15 (1) (b) of the Official Record of the Proceedings of the International Commission on Zoological Nomenclature at its Seventh Meeting held during its Paris Session in July, 1948 (1950, *Bull. zool. Nomencl.* **4**: 219)) as being methods of distributing zoological books and papers which do not qualify a new name contained therein as having been made public in a publication ("divulgué dans une publication") the following new item :

" (iv) the inclusion of a new name in a book or paper distributed in microfilm ".

7. Adoption on 9th August, 1952, of a " Declaration " banning distribution by microfilm as a method for publishing names for taxonomic units : The International Commission adopted on 9th August, 1952, a *Declaration* on the subject of the distribution of microfilms as a method of " publishing " new names for taxonomic units in the terms of the draft quoted in paragraph 6 above. Of the eighteen members of the International Commission there voted in favour of the proposed *Declaration* the following seventeen Commissioners (arranged in the order in which votes were received) : E. M. Hering ; N. D. Riley ; J. R. Dymond ; W. T. Calman ; B. Hankó ; P. Bonnet ; H. E. Vokes ; A. do Amaral ; J. Pearson ; F. Hemming ; J. C. Bradley ; T. Esaki ; H. Lemche ; R. Mertens ; N. R. Stoll ; A. Cabrera ; H. Boschma. No Commissioner voted against the proposed *Declaration* ; no vote was received from T. Jaczewski.

8. Submission of " Declaration " adopted by the International Commission on Zoological Nomenclature to the Fourteenth International Congress of Zoology for final approval : Under the procedure governing the rendering by the International Commission on Zoological Nomenclature of *Declarations* interpreting the *Règles* an interpretation so given becomes operative immediately, but it is the duty of the International Commission to submit a *Declaration* so adopted to the next International Congress of Zoology for final approval. In accordance with the foregoing procedure the *Declaration* set out in paragraph 6 of the present note adopted by the International Commission on Zoological Nomenclature by seventeen votes (one Commissioner not voting) is hereby submitted to the Fourteenth International Congress of Zoology for final approval.

DOCUMENT 27/2

By **J. CHESTER BRADLEY** (*Cornell University, Ithaca, N.Y., U.S.A.*)

Extract from a statement received on 19th July, 1952

(Note : The remainder of the following statement dealt with a distinct, though allied, subject and is reproduced as Document 28/2 of Case No. 28)

So far as the important comments made by Mr. Joshua L. Baily, Jr. (*Bull. zool. Nomencl.* **6** : 223) are concerned, it may be remarked :—

(a) There is nothing in the action about to be taken that will prevent or discourage the dissemination by microfilm of all types of biological information that have no bearing on nomenclature.

(b) At present methods of publishing and distributing microfilm and of securing its continued availability, of storing it, cataloguing, recording and advertising its content, and for its universal facile use have not been developed to the point where matter published in it could be allowed to affect nomenclatural practice without confusion, if not even chaotic, result.

(c) If and when in the future these difficulties are overcome, there would be no inconsistency, should the Commission find it advisable to set a date after which microfilm would be an accepted method of publication.

CASE No. 28

ARTICLE 25 : PROPOSED CO-ORDINATION WITH OTHER PARTS OF THE " RÈGLES " OF THE PROVISION IN, RELATING TO THE NOMENCLATORIAL STATUS OF BOOKS AND PAPERS, THE MANNER OF THE ISSUE OF WHICH DOES NOT SATISFY THE TESTS PRESCRIBED FOR " PUBLICATION "

(Commission's reference Z.N.(S.)741)

DOCUMENT 28/1

Explanatory Note by **FRANCIS HEMMING,** C.M.G., C.B.E.
(*Secretary to the International Commission on Zoological Nomenclature*)

In connection with the case (Case No. 27) relating to the proposed banning of distribution in microfilm as a method of publishing names for taxonomic units, I have explained (Document 27/1, paragraph 2) how, during the voting on the proposed *Declaration* relating to the foregoing subject, Professor J. Chester Bradley drew attention to the lack of adequate provision in the *Règles* for ensuring that the provision in Article 25 withholding status in zoological nomenclature from names made public in conditions which do not satisfy the requirements prescribed in that Article covers also provisions in other parts of the *Règles*, e.g. the selection of the type species of a genus under Rule (g) in Article 30.

2. Professor Bradley's proposal for remedying the foregoing defect was contained in a note which, in part, was concerned exclusively with the problem of the status of new names in papers distributed only in microfilm. The latter part of Professor Bradley's note has therefore been reproduced as Document 27/2. The first part of his note, i.e. the part containing his proposal for remedying the defect discussed above, is reproduced below as Document 28/2.

DOCUMENT 28/2

By **J. CHESTER BRADLEY** (*Cornell University, Ithaca, N.Y., U.S.A.*)

Extract from a statement received on 19th July, 1952

PROPOSAL OF AN ADDITION TO THE " RÈGLES "

I heartily support the action, but it does not go far enough, since it merely rules that " inclusion of a new name in a book or publication distributed in microfilm " will not qualify the new name.

The question will at once arise, will it qualify selection of the type-species of a genus ? or designation of a lectotype ? or elevation or reduction of rank ? or any of the many other acts that affect nomenclature ?

The same deficiency exists in all provisions of the *Règles* concerning publication, since all are couched in terms that refer solely to whether a new name has or has not been established.

For these reasons I wish to propose that the following addition to the *Règles* be (in substance) adopted at Copenhagen for inclusion in an appropriate Article :—

> " All provisions of these *Règles* relating to what does or does not constitute publication of a new name shall apply with equal force to what does or does not constitute publication of any type of information or notice that, if it were published, would affect nomenclatorial practice."

CASE No. 29

ARTICLE 25, PROVISOS (A) AND (C): PROPOSED REDRAFTING IN ORDER TO MAKE IT CLEAR THAT, IN ORDER FOR A NAME TO BECOME AVAILABLE, IT MUST BE PUBLISHED WITH DIAGNOSTIC CHARACTERS

(Commission's reference Z.N.(S.)738)

DOCUMENT 29/1

By the **COMMITTEE ON NOMENCLATURE OF THE CHICAGO NATURAL HISTORY MUSEUM**

Extract from a letter dated 15th May, 1952

The Committee on Nomenclature of the Chicago Natural History Museum proposes modifications of and additions to the Rules of Zoological Nomenclature as below stated. These proposals* are submitted to the International Commission more than one year in advance of the International Zoological Congress at Copenhagen with the request that they be put to a vote at the Section of Nomenclature of said Congress.

Proposal 3

We propose that Article 25 be redrafted to bring out more clearly the fact that the name of a new species or sub-species becomes available only if the description includes diagnostic characters, that is, taxonomic characters that distinguish the newly-described entity from all others known at the time of the publication of the description.

Reasons: The rules in their present form do not distinguish clearly between "diagnosis" (= the statement of characteristic features) and "differential diagnosis" (= the direct comparison with a specifically named similar one related entity).

A description must be *diagnostic*, that is, it must include characters "that distinguish or differentiate" the newly-named form from all others

* The other proposals referred to here are being published at the appropriate points in the present volume.

known at the time of the description. On the other hand, a *differential diagnosis*, although recommended in the rules, is not required to assure the availability of a name.

Karl P. Schmidt
Dr. Fritz Haas
Loren P. Woods
Robert F. Inger
A. L. Rand (mostly reservations about the form of Proposal 3)
Emmet R. Blake
Rupert L. Wenzel
Colin Campbell Sanborn
Clifford H. Pope
D. Dwight Davis

DOCUMENT 29/2

By **FRANCIS HEMMING**, C.M.G., C.B.E.
(*Secretary to the International Commission on Zoological Nomenclature*)

ON THE DIFFICULTIES ENCOUNTERED IN PRESCRIBING A MINIMUM STANDARD FOR AN " INDICATION " FOR THE PURPOSES OF PROVISO (A) TO ARTICLE 25 IN DOCUMENT 29/1

The proposal brought forward in Document 29/1 by the Committee on Nomenclature of the Chicago Natural History Museum that, in order to acquire availability under Article 25, a new name must be accompanied by a statement of the diagnostic characters which distinguish the species in question from all species known up to that time raises an issue which has always been a cause of difficulty. For this reason, the following brief summary of the efforts which have been made to deal with this subject may be of convenience, since these illustrate the inherent difficulties of this problem and are of value as indicating the pitfalls which must be avoided.

2. Provision made in Article 25 at the time of the adoption of the "Règles": At the time of the adoption of the *Règles* at Berlin in 1901—the actual text was not promulgated until early in 1905—the provision in Article 25 was simply that a name, in order to acquire status under the Law of Priority, must, at the time of publication, have been " accompanied by an indication, or a definition or a description " (English translation of relevant portion of Proviso (a) to Article 25).

3. Action taken by the Tenth International Congress of Zoology at Budapest in 1927 : The difficulties involved in determining what should be the minimum requirement in the way of an indication, definition or description which should entitle a specific trivial name to acquire rights under the Law of Priority were examined intermittently by the International Commission on Zoological Nomenclature for a considerable number of years following the end of the 1914–1918 war ; these discussions led the Commission to the view that, so far as names already published were concerned, it must be left to the judgment of specialists to decide whether a given specific (or subspecific) trivial name had been published with an " indication " sufficient to enable it to satisfy the requirements of Proviso (a) to Article 25. The Commission took the view, however, that it would be practicable to require a higher standard for names published in the future than that already laid down in the *Règles* (see paragraph 2 above). The Commission accordingly submitted a recommendation to the Tenth International Congress of Zoology at Budapest in 1927 that a new Proviso (Proviso (c)) should be added to Article 25, this Proviso to apply only to names published after 31st December, 1930. So far as specific trivial names were concerned, this Proviso contained the following provisions :—

> (c) that no . . . . . specific name published after 31st December, 1930, shall have any status of availability (hence of validity) under the Rules, unless and until it is published either :—
>
> (1) with a summary of characters (seu diagnosis ; seu definition ; seu condensed description) which differentiates or distinguishes the . . . . species from other . . . . species ; or
>
> (2) with a definite bibliographic reference to such summary of characters (seu diagnosis ; seu definition ; seu condensed description) ; . . . . .

4. Difficulties experienced in applying the decision taken at Budapest in 1927 : Within seven years of the entry into force of the decision taken at Budapest, the difficulties of applying that decision led to the submission to the Commission of a request for its elucidation. This application came from Professor H. B. Hungerford (then Head of the Department of Entomology at the University of Kansas, Lawrence, Kansas) who, in a letter dated 13th January, 1937, drew attention to the requirement in Proviso (c) to Article 25 that descriptions of new species must be comparative and cited a description (of which he enclosed a photostat) which had recently been published for a new species of insect in which the foregoing requirement had not been observed. Professor Hungerford continued as follows : " During the past year we have seen any number of descriptions such as the enclosed. According to our Rules, may *Erythroneura contrasta* A. & J. [of the description published for which he had enclosed a photostat] be ignored ? If, during the same year but later month, another named the same insect, should not the latter name stand if it fulfils the Rules ? " Professor Hungerford's application was later published in the (then) newly established *Bulletin of Zoological Nomenclature* (Hungerford, 1945, *Bull. zool. Nomencl.* **1** : 102–103).

5. Other Communications received between 1945 and 1948 : (1) In a document enclosed with a letter dated 17th November, 1945 (see Annexe 1 to the present note), Professor Chester Bradley analysed the description published by Auton & Johnson for *Erythroneura contrasta* (the description cited by Professor Hungerford) and expressed the view that this description satisfied the requirements of Proviso (c) to Article 25, " unless other species can be produced that fit the description ", a contingency which he considered unlikely in view of the importance attached to the genitalia in this group and the detailed description given for these organs for the above species by the authors cited above. Thus, Professor Bradley's view was that the essential requirement of Proviso (c) was that a new description must contain particulars which would enable the species in question to be separated from all previously described species and that it was not an essential part of this Proviso that an explicit comparison should be made with other species. (2) A few months later a different view was expressed in a proposal submitted (under cover of a letter dated 6th March, 1946, from Dr. Ernst Mayr) by the Committee on Nomenclature of the American Museum of Natural History, New York (see Annexe 2 to the present note). Under this proposal paragraph (1) of Proviso (c) ought, it was suggested, to be redrafted to provide " that a definite comparison with a known near relative be an obligatory part of the original description of any new species " ; it was proposed that the revised version of Proviso (c) should provide " that all names be considered *nomina nuda* which lack in the original description a reference by name to a near relative and mention of diagnostic characters which differentiate or distinguish the genus or the species from other genera or species ". (3) In a later letter (dated 24th June, 1946, for an extract of the relevant portion of which see Annexe 3 to the present note), Dr. Mayr stated that some of the correspondents of the Nomenclature Committee of the Museum had expressed the opinion that it would be simpler if the revised provision were to require " that the description must be fully diagnostic in regard to all other known genera, species or subspecies ". This change " would at once kill all the careless and meaningless descriptions which place all the work on subsequent revisers ". (4) An entirely different view was expressed in a communication (received on 17th February, 1947) from the late Professor Lodovico di Caporiacco (reproduced in Annexe 4 to the present note) in which he brought forward examples of the absurdities—as they appeared to him—which would arise if Proviso (c) to Article 25 were to be amended so as to require that the description of a new taxonomic unit should contain an explicit reference to, and comparison with, some specified, previously described, such unit. (5) Shortly afterwards (in a letter dated 8th April, 1947) the late Dr. Th. Mortensen took up a view similar to that expressed (see (1) above) by Professor Chester Bradley, stating : " *Erythroneura contrasta* Auton & Johnson should stand ".

6. Discussion in Paris in 1948 : The present problem was considered by the International Commission on Zoological Nomenclature on 22nd July, 1948, at the Fourth Meeting of its Paris Session. In view of the importance of this subject and of the differences of opinion that had been expressed—

though not in Paris—in regard to it, a full summary of the discussion which took place was included in the *Official Record of the Proceedings* of the International Commission which was published in 1950 (*Bull. zool. Nomencl.* **4**: 70–71). Since this discussion traversed the same ground as that covered by the present application from the Chicago Natural History Museum, it is considered that it will be of assistance to the consideration of this matter to reprint below the Official Record of the Paris discussion.

Article 25, Proviso (c) (1): the expression " which differentiate . . ."

7. THE COMMISSION considered next the expression " with a summary of characters which differentiate or distinguish the genus or species from other genera or species," as used in Section (1) to Proviso (c) to Article 25. Professor H. B. Hungerford (U.S.A.) (Commission File Z.N.(S.) 61) had asked whether under these words, it was necessary that a description of a new species, in order to make the new name available, must contain an express reference to, and a comparison with, some previously published species (see Hungerford, 1945, *Bull. zool. Nomencl.* **1**: 102–103).

In the discussion which ensued, it was generally agreed that, though well-intentioned, this provision in Article 25 was open to the objection that it invalidated otherwise properly published names on a purely technical nomenclatorial ground. It was a ritualistic provision which should be modified in conformity with the principle adopted in dealing with the expression " definite bibliographic reference ". What was needed was that this provision should require a higher standard for names published after 31st December, 1930, than for names published before that date (when all that was required was that the new name should be published with an " indication, definition or description "). The provision in question should, however, be less rigorous than that contained in the existing Section (1) to Proviso (c). It was pointed out that, if the requirement that the description should be comparative were to be deleted, the only distinction which could be drawn in this matter between names published on or after 1st January, 1931, and names published before 1st January, 1931, was between names which, when first published, had been accompanied by words giving particulars of characters and those which depended for their availability, in the case of generic names, solely upon the designation or citation of a type species, and, in the case of the trivial names of species or subspecies, solely upon an accompanying figure or illustration.

7. The decision reached in Paris in 1948 : In the light of the discussion summarised above, the International Commission in Paris in 1948 adopted the following recommendation (1950, *Bull. zool. Nomencl.* **4**: 71), which was later approved by the Thirteenth International Congress of Zoology (1950, *ibid.* **85**: 69, 76, 131).

THE COMMISSION agreed to recommend :—

(1) the deletion of Section (1) of Proviso (c) to Article 25 and the insertion in its place of a new Section (1) as follows :—

> " with a statement in words indicating the characters of the genus, species or subspecies concerned."

(2) to insert a *Recommandation* to Proviso (c) (1), urging authors, when drawing up descriptions of new genera, subgenera, species or subspecies to give not only an absolute, but also a comparative, description thereof, by indicating :—

(a) in the case of a generic or subgeneric name, the characters which separate the genus or subgenus concerned from the previously described genus or subgenus to which it is considered that the new genus or subgenus is most closely allied ;

(b) in the case of a specific name, the characters which separate the new species from the previously described species to which it is considered to be most closely allied, and, if that is a little-known species, the characters which separate the new species from a well-known or common species included in the genus ;

(c) in the case of a subspecific name, the characters which distinguish the new subspecies from the subspecies to which it is considered to be most closely allied, and, if that is a little-known subspecies, the characters which distinguish the new subspecies from a well-known or common subspecies of the species concerned.

8. Concluding observations : Everyone will, I am confident, agree with the object of the amendment to Article 25 made by the Budapest Congress in 1927 and the similar object entertained by the Committee on Nomenclature of the Chicago Natural History Museum in the application which it has now submitted. For, as every taxonomist knows from experience, badly prepared descriptions containing no comparison with allied species throw a heavy burden (as Dr. Mayr has pointed out) on subsequent revisers and the elucidation of such descriptions involves a large expenditure of time which could much more profitably be devoted to more valuable studies. The only question upon which opinion may differ is the extent to which it is desirable or practicable to make the inclusion of diagnostic characters of specified types an essential condition for the acquisition by a name of availability under the Law of Priority. There are, it seems to me, several important considerations which require to be carefully weighed before any substantial change is made in the direction suggested. These are : (1) To what extent is it likely that zoologists generally would comply with more rigorous conditions than those agreed upon in Paris, if such were now to be adopted ? (2) Is there a risk that the rejection of names which did not satisfy the proposed more rigorous conditions would lead to an even greater waste of time by subsequent revisers in searching the

later literature for the first occasion after the publication of a rejected name on which that name was used by an author who indubitably cited diagnostic characters for the species in question ? (3) Is there not a likelihood that a revised provision of the kind suggested would be open to criticism on the ground that—to use the expression originally coined by Dr. J. Brookes Knight of Washington—it imposed a " ritualistic " condition for the rejection of a name and one which ought not to find a place in the portion of the *Règles* which regulates the availability of names ? (4) Is it not likely that the introduction into the *Règles* of a subjective test such as that involved in determining whether or not a given original description was sufficiently " diagnostic " to satisfy the requirements of the new provision would lead to increased instability in nomenclature through disagreement among specialists, a situation which could only be brought to an end either by the submission to the International Commission of an application for the suppression of the name concerned or for a ruling as to whether or not the original description was or was not sufficiently diagnostic to satisfy the requirements of the new provision ? (5) Would it be practicable to require that, in order to acquire availability, a name should be published with a comparison with all other taxonomic units known at that time ? For would not this mean that every description of a new species would need to be accompanied by comparisons separating it from all members of the genus—a task which in the case of a large genus would be extremely complicated and in the case of a genus for which no recent revision had been published would involve the preparation of such a revision before the new genus could be described ? (6) Finally, must it not be admitted that the expression " all others known at the time of the time of the description " would, if adopted, impose on the systematist a quite impossible task, for even when such periodicals as the *Zoological Record* are as up to date as it is possible to make them, the latest volume—from which information about the latest published names may be obtained—always relates to a period at least a year in the past ? Question (4) is clearly one of great importance, since on the one hand the *Règles* should certainly be such as to make it possible, if necessary, with the help of the International Commission, to secure a definite ruling whether a given name is an objectively available name but, equally clearly, they should not be such that, in order to terminate instability and lack of uniformity in the nomenclature of any given group, it would be necessary to ask the International Commission for a definitive ruling as to whether a given name was published with a sufficiently diagnostic description. Such a resort to the International Commission would, in my opinion, be open to strong objection, involving it in a decision on a question of a purely taxonomic character on which it would be quite inappropriate to look for a ruling from the Commission. For, while the Commission is fitted to give rulings on objective questions of fact such as whether a given name was duly " published " or, when published, was " accompanied by statement in words indicating the characters of the " taxonomic unit concerned, it is not fitted to give—and I should doubt its willingness to give—a ruling on a question involving only a subjective judgment on a matter not essentially concerned with nomenclature at all. Questions (5) and (6) also raise important issues, for it is clearly undesirable to make the

writing of a new description unduly cumbrous or laborious and something which could not even be attempted except in a few institutions in different parts of the world containing virtually complete collections of current serial publications. Indeed, with the divisions which at present separate zoologists into two geographical groups, the institution of such a rule in the form in which it has actually been proposed would mean that years might well elapse before it was possible to determine whether a given specific name satisfied the new rule—and was therefore an available name—owing to the utter impracticability of ascertaining whether in the other half of the world a description had been published for some allied species with which (inevitably) no comparison had been given in the original description.

ANNEXE 1 TO DOCUMENT 29/2

View expressed by Professor **J. CHESTER BRADLEY**

(*Cornell University, Ithaca, N.Y., U.S.A.*)

Extract from a statement enclosed with a letter dated 17th November, 1945

The requirement of Article 25 (c) referred to is that the name must be " published with a summary of characters (seu diagnosis ; seu definition ; seu condensed description) which differentiate or distinguish the genus or the species from other genera or species ".

The purpose of the quoted description of *Erythroneura contrasta* seems to have been to differentiate this species from others, and it does so unless other species can be produced that fit the description. In view of the importance attached to the male genitalia in this genus, and of the detailed description of those organs by Auten and Johnson it may be assumed that this is not the case, and it would certainly require a specialist to prove the contrary.

It may be noted that the wording of Article 25 (c) is " from other genera or species " not " from all other genera or species " and this is a matter of importance. No one familiar with the difficulties inherent in taxonomic research would assume that all authors could in all cases be successful in differentiating any given form from all others : the progress of taxonomy cannot always wait until all genera or species in the world fauna of a given group are known with certainty before an author can proceed to describe a new form, and he may err in his judgment that the description he produces truly differentiates it from *all* others. Conditions would become chaotic if it were allowed that any name published after 1930 were liable to be invalidated in case some author were to discover or assume to discover that there existed some other genus or species from which the description did not fully differentiate it. All that can reasonably be required or even expected is that the author shall have made an honest

effort to provide a description that will truly differentiate the genus or species from at least those others known to occur or likely to occur in the same faunal area.

Article 25 (c) uses the expression " condensed description ". Since it is not possible to establish any standard by which it can be determined whether or not a description is condensed, nor to determine the point at which it becomes so condensed that it no longer serves to differentiate the species from others, this matter must in practice be left to the author of the species. It would seem that the word " condensed " should be construed rather as an admonition, advising authors toward what they should strive, rather than as a requirement that must be precisely met.

Instances are supposed to have occurred of an author publishing a " description " of new species but purposely withholding statement of diagnostic characters in order that his colleagues should not be advised of the facts and thus able to " trespass " upon what he conceived of as his pre-empted taxonomic field. When it is borne in mind that such an author could publish several truthful but identical descriptions of different new species of the same genus (by omitting their distinguishing characters) and that if this had been done before 1931 the new species would have met the requirements of Article 25, the significance of the phrase " which differentiate or distinguish the genus or species from other genera or species " becomes apparent.

ANNEXE 2 TO DOCUMENT 29/2

Proposal submitted by the **COMMITTEE ON NOMENCLATURE OF THE AMERICAN MUSEUM OF NATURAL HISTORY, NEW YORK**

Enclosure to a letter dated 6th March, 1946, from Dr. ERNST MAYR, *Chairman*

Whereas the intent of Article 25, section c, paragraph 1 has been variously interpreted by different taxonomic workers, with the result that the validity of many names published after 31st December, 1930, is in doubt.

Therefore be it resolved that the International Commission be requested to revise this Article in order to eliminate the present ambiguous wording, and

That it be stated in the new version of Article 25, section c, paragraph 1, that a definite comparison with a known near relative be an obligatory part of the original description, and

That all names be considered *nomina nuda*, which lack in the original publication a reference by name to a near relative and mention of diagnostic characters which differentiate or distinguish the genus or the species from other genera or species.

Committee on Nomenclature
The American Museum of Natural History, N.Y.

Edwin H. Colbert
Willis J. Gertsch
George H. H. Tate
John T. Zimmer
Ernst Mayr, *Chairman.*

Enclosure to statement furnished by the Committee on Nomenclature of the American Museum of Natural History

Note : Annexed to the statement furnished by the American Museum of Natural History was a list containing the signatures of the zoologists who have either voted for, or against the proposed solution.

2. Those who have voted in favour of the proposal were :—

Harold E. Anthony
George G. Goodwin
G. H. H. Tate
John E. Hill
Charles H. Falkenbach
Morris Skinner
Robert C. Murphy
John T. Zimmer
Ernst Mayr
James P. Chapin
Charles E. O'Brien
E. Thomas Gilliard
Charles K. Nichols
Jean Delacour
Charles M. Bogert
James A. Oliver
C. M. Breder
Francesca LaMonte
Mont A. Cazier
Willis J. Gertsch
Annette L. Bacon
Herbert F. Schwarz
William P. Comstock

3. Those who have voted against the proposal were :—

Dean Amadon
John T. Nichols
G. G. Simpson
Edwin Colbert
Norman Newell
Otto Haas
Bobb Schaeffer
Rachel Nichols
Brooks Ellis
Angelina Messina

ANNEXE 3 TO DOCUMENT 29/2

Supplementary statement furnished by **DR. ERNST MAYR**
(*American Museum of Natural History, New York*)

Extract from a letter dated 24th June, 1946

In regard to the resolution concerning the revised wording of Article 25, Section c, Paragraph 1, some doubt has arisen among some of our correspondents whether it would not be more simple merely to demand that the description must be fully diagnostic in regard to all other known genera, species, or subspecies. This would at once kill all the careless and meaningless descriptions which place all the work on subsequent revisers.

ANNEXE 4 TO DOCUMENT 29/2

View expressed by the late Professor **LODOVICO DI CAPORIACCO**
(*University of Parma, Italy*)

Statement received on 17th February, 1947

ON THE STATUS, UNDER ARTICLE 25 OF THE INTERNATIONAL CODE, OF SPECIFIC NAMES PUBLISHED WITH DESCRIPTIONS BUT WITHOUT COMPARISON WITH ALLIED SPECIES (*Bull. zool. Nomencl.* **1** : 102).

Proviso (c) to Article 25 does not mean, in my opinion, that new species must be compared with others, but that they must be described with a summary of characters which differentiate or distinguish the species from other species.

That is not the same thing. It is enough, in my opinion, that I give the characters differentiating the species from others, without making an explicit comparison.

Were it not so, we would meet with several absurdities.

For instance : Take a genus, like *Araneus* which includes several hundreds of species. If I had to describe a new species, I should, therefore, need to compare it with hundreds of other species : that is not possible : every description would become a complete monograph of the genus. Or had I to compare the new species with *some* other species ; which should they be ? Logically, with those that are closer akin, but that is a subject of personal valuation, a subject of systematics, not of nomenclature, and one upon which nomenclature laws cannot rule. So, we could have the situation that a new *Araneus*, say,

from New Zealand might legitimately be named upon a simple comparison with the European *A. diadematus:* it is clear that such a comparison would have no value, as there may be a score of *Araneus* much more allied to the new one than *A. diadematus*, with which no comparison would have been made nor be possible, and yet the described species, by no means recognisable, would be valid, whereas if no explicit comparison were made, it would not be valid even if the description (and naming) of the same species were made with great accuracy in a way that would enable anyone to compare the species with every other species of the genus.

That would be absurd.

Take another instance.

In some animals, for instance in some groups, ♂ and ♀ are quite different, and are not comparable with one another. Suppose we have a couple of species of such and such a group, all represented by ♂♂ only. Later, I find a ♀, the first known of the genus. It is from quite a different country than the other species, so I can assume it is new. But I cannot compare it with the other species, because, though its characters are very different, they are simply sexual ones. Should then my species be invalid ? Of course not : it is enough, for the letter and the spirit of proviso (c), that I describe the characters that may differentiate the species. It is not said that a comparison is necessary—nor am I obliged myself to make such a comparison.

Therefore *I think that, if a species is described with the differentiating characters*, for instance, as in the case citated of *Erythroneura contrasta* with the details of the genitalia, which are ordinarily peculiar to each species, *so that any one can make the necessary comparisons, the name given to the species is valid even though the author did not make an explicit comparison with other species.*

CASE No. 30

ARTICLE 25, PROVISOS (A) AND (C): PROPOSED INSERTION OF A PROVISION DENYING AVAILABILITY IN THE CASE OF THE TRIVIAL NAME OF ANY FOSSIL SPECIES UNLESS AT THE TIME OF THE PUBLICATION OF THAT NAME THERE WAS PUBLISHED ALSO A FIGURE OF THE SPECIES IN QUESTION

(Commission's reference Z.N.(S.)693)

DOCUMENT 30/1

By **C. J. STUBBLEFIELD,** D.Sc., F.R.S. (*Geological Survey and Museum, London*), **L. R. COX,** Sc.D., F.R.S. (*British Museum (Natural History), London*), and **R. V. MELVILLE,** M.A. (*Geological Survey and Museum, London*)

Enclosure to a letter dated 17th August, 1952

A decision internationally agreed among geologists is reported in the C.R. 2nd Internat. Geol. Congress (Bologna 1881), 1882, p. 198 that for fossils " à l'avenir, pour les noms spécifiques, la priorité ne sera irrevocablement acquise que lorsque l'espèce aura été non seulement décrite, mais figurée."

2. The Bologna decision is accepted by Prof. Dr. R. Richter, a former member of the ICZN, in the following publications: " Einführung in der Zoologische Nomenklatur durch Erlaüterung der Internationalen Regeln " (2nd Ed.), Frankfurt a.M., 1948, p. 154; *Senckenbergiana,* **31**: Nos. 5/6, 1950, p. 175; R. & N. Richter, *ibid.*, **32**: Nos. 1/4, 1950, p. 232; R. Richter " Die Illegitimetät bilder-losen Arten und Gattungen in der Paläontologie ", *ibid.*, **33**: Nos. 1/3, 1952, pp. 75–77.

3. (i) The Société Géologiques de France states in its rules, Chapter VII, Article 61 (*Bull. Soc. geol. France,* (4), **24**: 1924, p. 6) "Aucun nom nouveau d'espèce fossile ne peut être inséré dans les publications de la Société s'il n'est pas accompagné d'une figure et d'une description assez complète pour bien caracéteriser l'espèce ".

(ii) The instructions for authors contributing to the *Mémoires paléontologiques suisses* state, under Rule 17 (p. 6) " L'établissement d'une nouvelle espèce non accompagnée d'une figure n'est pas admise. On joindra au texte descriptif une nouvelle figure si l'on ne peut pas se referer a une figure déjà existante."

4. In living animals it may be possible, when dealing with newly found material, to recognise the diagnostic characters of a given species from a written description only. This is seldom the case with fossils when the specific identity of the material may be obscured by differences in preservation.

5. The International Rules of Botanical Nomenclature state under Article 39 " From January 1st, 1912, the name of a new taxonomic group of fossil plants is not conceived as validly published unless it is accompanied by illustrations or figures showing the essential characters, in addition to the description or by a reference to a previously and effectively published illustration or figure."

6. Accordingly the Commission is asked to recommend to the International Zoological Congress that Article 25 of the *Règles* (The Law of Priority) be amended by inserting the provision that no fossil species shall have any status of availability unless published with a figure or with reference to a previously published figure.

7. The Commission is further requested that the foregoing provision should be made retrospective to the date of publication of the resolution adopted by the Bologna Congress quoted in Paragraph 1 of the present Application and it is suggested that the date on which the Bologna decision became effective be determined as 1st January, 1883.

8. As regards names published for genera of fossils, it is asked that the revised Articles should provide that no such name published after the date specified in Paragraph 7 above should have any rights under The Law of Priority, unless the species which was designated as the type species of the genus in question, or was later selected as such, has been figured.

9. In order that the present proposal which is submitted solely in the interests of palaeontological work may not cause inconvenience or confusion among workers on recent species of animals, it is suggested that the provisions asked for in paragraphs 7 and 8 above shall not deprive the specific and generic names affected of their powers under the laws of homonymy.

Note by the Secretary : I should explain that, when in August, 1952, Dr. Stubblefield communicated the foregoing application, he kindly sent me also the draft of a Resolution in regard to the subject dealt with in it which it was then proposed should be submitted to the Council of the Nineteenth International Geological Congress then due to meet shortly afterwards at Algiers. I have not, however, received any notification from the authorities of the Congress as to what transpired in regard to this matter. (intl'd) F. H., 29th May, 1952.

DOCUMENT 30/2

By **FRANCIS HEMMING**, C.M.G., C.B.E.
(*Secretary to the International Commission on Zoological Nomenclature*)

ARTICLES 25 AND 30: PROPOSED ADDITION OF "RECOMMANDATIONS" DESIGNED TO PROMOTE THE PUBLICATION OF FIGURES WHENEVER NAMES ARE GIVEN TO SPECIES OR TAXONOMIC UNITS OF LOWER RANK AND TO ENSURE THAT, SO FAR AS POSSIBLE, THE SPECIES DESIGNATED, INDICATED, OR SELECTED AS THE TYPE SPECIES OF GENERA SHALL BE SPECIES FOR WHICH FIGURES HAVE BEEN PUBLISHED

In the immediately preceding document (Document 30/1), Dr. G. J. Stubblefield, with Dr. L. R. Cox and Mr. R. V. Melville, recommends that a provision should be inserted in Article 25, Proviso (a), depriving of status in zoological nomenclature (1) any name published for a Fossil species without a figure since 31st December, 1882, and (2) any name published for a genus of fossils since the foregoing date, the type species of which has not been figured.

2. The above application is conceived solely in the interests of palaeontological work and is not intended—as Dr. Stubblefield has made clear—to modify the existing position of names given to Recent species or to genera for such species. For otherwise the provision suggested would, if approved, impose a serious additional burden upon neontologists when considering the status, from the standpoint af the Law of Homonymy, (1) of any generic name and (2) of any specific trivial name applicable to a Recent species either originally described in, or currently placed in, a genus containing Fossil as well as Recent species. Of the foregoing difficulties No. (1) would be a serious one from the standpoint of any author who wished to ensure that a name which he proposed to publish as a generic name was an available name in the sense that it was not a junior homonym of a nomenclatorially available generic name already published; for, if the application now submitted were to be approved without full safeguards, the neontologist in such a case would be placed in great difficulty if he found, say, on consulting (say) Neave's *Nomenclator Zoologicus* that the name which he proposed to use for his new genus had already been used in palaeontological literature. In such a case the neontologist concerned would no longer be able thereby to see at once that the name which he proposed to use was not an available name, since the older generic name published for a Fossil species might not be an available name, being based upon a type species which had not been figured at the time when it was named. In order to settle a problem of this kind, a neontologist would therefore need

both (a) to ascertain what was the type species of the genus of fossils concerned, a question which might well be a matter of great difficulty in the case of the names of genera published before 1st January, 1931, without designated or indicated type species—and, having done so, (b) to determine whether that species had been figured either at the time when it was first named or when it was designated as the type species of the genus concerned or at some intermediate date. These are tasks which would require for the neontologist a knowledge of palaeontological literature which it would be quite unreasonable to expect and would necessitate access to a well-equipped palaeontological library which might often not be available. It cannot, therefore, I think, be contested that, if any provision were to be inserted in the *Règles* on the lines suggested in Document 30/1, that provision would need to preserve for the purpose of determining the nomenclatorial status of names given to Recent genera and Recent species, the status under the Law of Homonymy of names given to Fossil genera and Fossil species which were validly published and were available names in all respects except that they did not satisfy the test in regard to the possession of published figures which it is the object of the application under consideration to make an essential requirement.

3. An aspect of the problem which is not touched upon in the application reproduced in Document 30/1 is the provision to be made for the case where —in the subjective view of taxonomists (either palaeontologists or neontologists or both)—a genus contains both Recent and Fossil species. For it would clearly be out of the question to permit a situation to arise under which either (1) a genus has two valid names, one for palaeontologists and the other for neontologists, or (2) the availability of a given generic name would depend upon the subjective view of taxonomists as to whether or not all its contained species were Fossil species.

4. At this point it may usefully be recalled that in times gone by a proposal similar to that now submitted by Dr. Stubblefield and his colleagues was strongly advocated for adoption in relation to the names of recent genera and recent species. For example, before the first World War such a proposal was urged at the International Entomological Congress held at Oxford. Under the enthusiastic leadership of the late M. Charles Oberthur the Congress was invited to subscribe to the formula : " Pas de bonne figure, pas de nom valable ". The proposal received, however, no substantial measure of support, partly (1) because it was felt that, while it was possible for a rich man to publish —as M. Oberthur habitually did—magnificent figures for all new species that he described, to do so would be an impossible (because inequitable) requirement to impose upon less favourably placed workers and upon struggling serial publications, and partly (2) because it was felt that the word " bonne " as used in the expression " bonne figure " constituted a fatal flaw in the proposal. For a hopeless dilemma was disclosed. On the one hand the inclusion of a qualifying adjective such as " bonne " would have introduced a subjective element of the most dangerous kind owing to the innumerable—and, in the circumstances contemplated, perfectly legitimate—opportunities which it

would have provided for argument whether a given published figure was sufficiently good to clothe with availability the name given to the species for which it was published. On the other hand, the entire purpose of the proposal would be destroyed if the suggested provision could be circumvented by the publication of cheaply reproduced and largely unrecognisable figures.

5. An alternative suggestion : In view of the difficulties discussed above, I should like to put forward for consideration the following alternative proposals :—

(1) that a *Recommandation* should be added to Proviso (a) to Article 25 strongly urging authors, editors of serial publications and others concerned with the production of books dealing with zoological and palaeontological subjects to do everything possible within the financial means at their disposal to publish a recognisable figure of any species or subspecies for which they may publish a new name.

(2) that a *Recommandation* should be added to Proviso (a) urging authors when establishing new nominal genera to avoid designating or indicating as the type species a species for which a satisfactory figure is not published at the same time or for which a figure has not already been published ;

(3) that a *Recommandation* similar to that suggested in (2) above should be added to Rule (g) in Article 30 in relation to the selection of the type species of nominal genera ;

(4) that, if (as is understood to be the case) the application now reproduced as Document 30/1 has been prompted, in part, by a desire to deprive of availability names published by particular authors in the past without figures for Fossil species which on that account are held by palaeontologists to be difficult or impossible to recognise, particulars of the cases concerned should be submitted to the International Commission on Zoological Nomenclature with a view to the suppression of the names concerned under the plenary powers.

CASE No. 31

ARTICLE 25 : QUESTION WHETHER A NAME GIVEN TO A NOMINAL GENUS, THE TYPE SPECIMEN OF THE TYPE SPECIES OF WHICH IS A PATHOLOGICAL MONSTROSITY SHOULD BE GIVEN ANY STATUS OF AVAILABILITY

(Commission's reference Z.N.(S.)719)

DOCUMENT 31/1

By **W. J. ARKELL**, M.A., D.Sc., F.R.S.
(*Sedgwick Museum, Cambridge University, Cambridge*)

Extract from a letter dated 22nd October, 1952

A very well-known genus of large Lias ammonites has always been called *Asteroceras*, but owing to a nomenclatural twist (type designation) this name has had to be used for something else, which originally was only a part of *Asteroceras* anct. For the rest, and main section, of *Asteroceras* anct., it has been said that *Caenisites* Buchman is available, for its inner whorls are said to resemble those of *Asteroceras* anct. But *Caenisites* is, as usual with Buchman, based on a single monotype only, and that is a pathological monstrosity the published photographs of which show none of the characters of *Asteroceras* anct.

The question is, must I accept *C. caenus* Buchman, in the *Treatise* [on Invertebrate Paleontology], as type species, on the grounds that one specialist has proclaimed his belief that it belongs to *Asteroceras* anct ? What I want to do is to choose one of the well-known species of *Asteroceras* anct., give it a new name, and apply to have *Caenisites* put on the *Official Index of Rejected and Invalid Generic Names*.

DOCUMENT 31/2

By **FRANCIS HEMMING**, C.M.G., C.B.E.

(*Secretary to the International Commission on Zoological Nomenclature*)

The immediately preceding letter from Dr. W. J. Arkell is no more than a preliminary communication in regard to a particular case which has not yet been submitted to the International Commission. Attention is, however, drawn to this case at this point, since it raises an issue which could be dealt with by the Commission under its plenary powers, if it so thought fit, but on which no clear ruling is to be found in the *Règles*.

2. It may be thought convenient to dispose of the question of principle at Copenhagen. The question for consideration is :—

(1) whether a name given to a nominal genus the type specimen of the type species of which is a pathological monstrosity should be treated as a *nomen dubium* and therefore a name which is nomenclatorially a danger in the sense (a) that at any time any author can claim to recognise the type species and thus lead to confusion and lack of uniformity in nomenclature by seeking to bring the name in question into use, and (b) that it preoccupies, as a senior homonym, any later use of the generic name in question ;

or

(2) whether there should be inserted in the *Règles* a provision that, where the type specimen of the type species of a nominal genus is a pathological monstrosity, the name given to that nominal genus shall possess no status in nomenclature (or, alternatively shall possess no status under the Law of Priority, though retaining its status under the Law of Homonymy, thus rendering any later use of that name invalid as a junior homonym).

CASE No. 32

ARTICLE 25 : PROPOSED INSERTION OF A PROVISION THAT A NAME PUBLISHED BY AN AUTHOR WHO MADE IT CLEAR THAT HIS OBJECT IN SO DOING WAS SOME PURPOSE OTHER THAN THAT OF PROVIDING A NAME FOR USE IN ZOOLOGICAL NOMENCLATURE POSSESSES NO STATUS OF AVAILABILITY

(Commission's reference Z.N.(S.)668)

DOCUMENT No. 32/1

By **FRANCIS HEMMING**, C.M.G., C.B.E.
(*Secretary to the International Commission on Zoological Nomenclature*)

In a paper published in May, 1951 (*Bull. zool. Nomencl.* **2** : 208–210), Dr. W. J. Arkell asked for a ruling on the question whether the generic name *Arieticeras* as published by Quenstedt in 1883 possessed availability under Article 25, having regard to the fact that Quenstedt, who was opposed to the multiplication of ammonite genera, made it clear that he was doing no more than illustrate the sort of genus-splitting that some authors favoured and that it was not his intention to bring forward the name *Arieticeras* for use in zoological nomenclature.

2. When I first considered this matter, I inclined to the view that it would introduce an undesirable element of subjective judgment into the *Règles* if a provision were to be inserted requiring that, in order to secure the status of availability, a name not only must have been duly published (a) with at least an " indication " and (b) by a binominal author, but must also in addition have been published in such a way as to make it clear that the name in question was intended for use in zoological nomenclature (1951, *Bull. zool. Nomencl.* **2** : 211–213).

3. From the comments subsequently received it became clear that the general feeling of workers was in favour of rejecting any name published by an author in circumstances which made it clear that his object in publishing the name was some purpose other than the provision of a name for use in zoological nomenclature. The comments received were the following : (1) Engel (1951, *Bull. zool. Nomencl.* **2** : 337) ; (2) Oldroyd (1952, *ibid.* **6** : 245) ; (3) Hölder (*ibid.* **6** : 245) ; (4) Baily (*ibid.* **6** : 246) ; (5) Haas (*ibid.* **6** : 246) ; (6) Joint Committee on Zoological Nomenclature for Palaeontology in America (not yet published). Of the foregoing, (a) Engel, A. Myra Keen and Siemon

Muller (the two latter as members of the Joint Committee) agreed with Arkell that the name *Arieticeras* should be accepted as from Quenstedt, notwithstanding his remarks at the time when he published this name. (b) Oldroyd, Hölder, Baily, Haas, and Reeside (through the Joint Committee) considered that in the circumstances in which this name was published it should be rejected as having no status of availability.

4. In the light of the opinions so expressed I altered my view on this subject and suggested that the problem raised by a name such as *Arieticeras* Quenstedt should be dealt with on lines similar to those already adopted in the somewhat parallel case where, in the opinion of taxonomists, a genus is based upon a misidentified type species. I accordingly suggested that the problem might be dealt with by the insertion in Article 25 of a provision prescribing that it is to be assumed that an author who publishes a new name does so for use in zoological nomenclature, save that, where any specialist is of the opinion that a given name was not published with the foregoing intention, he should refer the case to the Commission, which, if satisfied that the objection to the name is well founded, may direct that the name in question is to be treated as having no availability in zoological nomenclature (1952, *Bull. zool. Nomencl.* **6**: 247–249).

5. It may be felt that in some of the probably small number of cases of the kind here under discussion the author concerned made it so clear that he did not intend the name which he was publishing to be used in zoological nomenclature that it would be preferable to place the onus of proof not upon those zoologists who consider that the name should be rejected but upon those who consider that it should be accepted. In case this view finds favour, the following solution is suggested as an alternative to that suggested in paragraph 4 above, namely that there should be inserted in Article 25 a provision prescribing (a) that an author who publishes a name is to be assumed to have done so for use in zoological nomenclature, except where that author, when publishing the name in question makes it clear that the foregoing was not his object, (b) that, where it is clear that a given name was not intended for use in zoological nomenclature, that name shall possess no status under either the Law of Priority or the Law of Homonymy, and (c) that any case where it is not clear whether the name in question was intended for use in zoological nomenclature should be referred to the International Commission on Zoological Nomenclature for decision.

CONTENTS

(continued from front wrapper)

This Part contains the documents relating to the six cases which have been prepared for the Copenhagen Discussions under the Case Numbers 27 to 32.

These cases all relate to various aspects of Article 25 of the *Règles*. The titles of these cases are given on pp. 299–300.

Triple-Part 3/5 (Emendation of names)

It is regretted that technical reproduction difficulties are still holding up the publication of this Part. Publication is expected shortly after the present Part.

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